

REFERENCES

- ARUNACHALAM, M., A. SANKARANARAYANAN, A. MANIMEKALAN, R. SORANAM & J.A. JOHNSON (1999a): New record of *Salmostoma sardinella* (Pisces: Cyprinidae) from Mondai stream, Maharashtra. *J. Bombay nat. Hist. Soc.* 96(1): 162-163.
- ARUNACHALAM, M., A. SANKARANARAYANAN, A. MANIMEKALAN, R. SORANAM & J.A. JOHNSON (1999b): New record of *Stigmatogobius oligactis* to India. *J. Bombay nat. Hist. Soc.* 96(1): 167-168.
- ARUNACHALAM, M., A. SANKARANARAYANAN, J.A. JOHNSON, A. MANIMEKALAN & R. SORANAM (2000): New records of fishes from streams/rivers in Western Ghats of Maharashtra. *J. Bombay nat. Hist. Soc.* 97(2): 292-295.
- DAY, F. (1978): The Fishes of India. Jagminder Book Agency, New Delhi, Vol. I., (4th ed., 1994). Pp. 778.
- FRASER, A.G.L. (1942): Fishes of Poona. Part I. *J. Bombay nat. Hist. Soc.* 43: 79-91.
- GHATE, H.V. & V.M. PAWAR (1992): Fish fauna of the river Neera near Veer Dam, Pune: A preliminary note. Proc. 1st Nat. Symposium on Central Hydraulics: 118-121.
- GHATE, H.V., G.K. WAGH & S.L. LOKHANDE (1992): Fish fauna of the river Mula and Mutha, Pune. Proc. 1st Nat. Symposium on Central Hydraulics: 105-117.
- HORA, S.L. & K.S. MISRA (1942): Fishes of Poona. *J. Bombay nat. Hist. Soc.* 43 (2): 220-223.
- KULKARNI, C.V. & M.R. RANADE (1974): Fauna volume, Gazetteer Maharashtra State. Chapter I.
- JAYARAM, K.C. (1991): Revision of the genus *Puntius* Hamilton from the Indian region. *Rec. zool. Surv. India. Occ. Paper No. 135*: 178.
- JAYARAM, K.C. (1999): The freshwater fishes of the Indian region. Narendra Publishing House, Delhi. 551 pp.
- MENON, A.G.K. (1992): Conservation of freshwater fishes of Peninsular India. Unpublished report (Grant No. 14/24/87-MAB/RE dt. 12.8.1988) Ministry of Environment & Forests, Govt. of India. 136 pp.
- MENON, A.G.K. (1999): Checklist — Freshwater fishes of India. *Rec. zool. Surv. India, Occ. Paper No. 175*: i-xxix, 1-366 pp.
- MOLUR, SANJAY & SALLY WALKER (EDS.) (1998): Report of the workshop on "Conservation Assessment and Management Plan (CAMP) for freshwater fishes of India" Zoo Outreach Organization, Coimbatore, India. 156 pp.
- SUTER, M. (1944): New records of fish from Poona. *J. Bombay nat. Hist. Soc.* 44: 408-414.
- TALWAR, P.K. & A.G. JHINGRAN (1991): Inland fishes of India and adjacent countries. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. Vols. I & II, 1158 pp.
- TILAK, R. & D.N. TIWARI (1976): On the fish fauna of Poona district (Maharashtra). *Newsl. Zool. Surv. India* 2: 193-199.
- WEBER, M. & L.F. DE BEAUFORT (1953): The fishes of the Indo-Australian Archipelago. Leiden, E.J. Brill Ltd., A.J. Prints Agency, New Delhi.
- YAZDANI, G.M. & D.F. SINGH (1990): On the resources of Ujni wetland, Pune, Maharashtra. *J. Bombay nat. Hist. Soc.* 87: 157-160.

31. CHECKLIST OF ANTS FROM NORTHWEST INDIA-II

In India, no comprehensive work is available on the Family Formicidae (Insecta: Hymenoptera) since Bingham (1903), which mostly covers taxa from southern India, Burma (=Myanmar) and Sri Lanka. Since then, several taxonomic changes have been made. The present studies were carried out under a DST project on ants from northwest India and 8 subfamilies with 43 genera and 100 species have been recorded. Out of these, 13 new species have been reported. Two subfamilies, namely Dolichoderinae and Formicinae have been discussed.

SUBFAMILY: DOLICHODERINAE

1. *Bothriomyrmex dalyi* Forel 1895
Collected from plains (250 to 300 m).
Additional locality: Bengal.
2. *Bothriomyrmex wroughtonii* Forel 1895
Plains, in soil nests (250 to 330 m).
3. *Iridomyrmex glaber* (Mayr 1862)
Earlier reported from Western India, now collected from Chintpurni (700 m), Himachal Pradesh; Rohtak (220 m), Haryana.
4. *Tapinoma indicum* Forel 1895
Nest in soil, mainly in plains; reported only

from northwest India.

5. *Tapinoma melanocephalum* (Fabricius 1793)

Nest in soil, also in leaf litter; plains and foothills; widely distributed all over India.

SUBFAMILY: FORMICINAE

1. *Acropyga acutiventris* Roger 1862

Collected from Jahalman village near Keylong (3,100 m), Himachal Pradesh; restricted to northwestern region.

2. *Camponotus angusticollis* (Jerdon 1857)

Widespread in northwest India.

Additional localities: Central India, Assam.

3. *Camponotus arrogans* (Smith 1858)

Collected from Malakpur near Pathankot (400 m), and Mukerian (300 m), Punjab.

Additional locality: Bengal.

4. *Camponotus buddhae* Forel 1892

Collected from Lahoul (3,000 m), Himachal Pradesh; reported earlier from the same locality.

5. *Camponotus compressus* (Fabricius 1787)

Widely distributed.

6. *Camponotus dichrous* Forel 1886

Restricted to northwest Himalayas; collected from same belt.

7. *Camponotus dolendus* (Forel 1892)

Collected from Lahoul (3,000 m), Himachal Pradesh; reported earlier from northwest Himalayas.

8. *Camponotus invidus* Forel 1892

Collected from Dehra Dun (660 m), Uttaranchal; Lahoul (3,000 m), Himachal Pradesh.

Additional locality: Orissa.

9. *Camponotus lamarckii* Forel 1892

Collected from Terrace (400m), Himachal Pradesh.

Additional locality: Sikkim.

10. *Camponotus oblongus* (Smith 1858)

Collected from Gobinddham (3,000 m), Uttaranchal; Dunera (700 m), Himachal Pradesh; reported to be widely distributed.

11. *Camponotus misturus* (Smith 1857)

Found to be widely distributed in

northwestern India and represents first report from India.

12. *Camponotus sericeus* (Fabricius 1798)

Widely distributed in India.

13. *Camponotus taylori* Forel 1894

Widely distributed in India.

14. *Camponotus wasmani* Emery 1893

Collected from Dunera (700 m), Himachal Pradesh; Chohal (400 m), Punjab.

Additional locality: Sikkim, Assam.

All the species of *Camponotus* were found in diverse habitats, most of them among the roots of various trees like *Dalbergia*, *Mangifera*, *Acacia*, *Cassia*, and *Zizyphus* and collected in plains, foothills and high altitude regions. Workers generally have large mandibles and are mostly polymorphic.

15. *Cataglyphis setipes* (Forel 1894)

Collected from soil nests in extremely hostile environments with high temperature, nests in direct sunlight, in areas ranging from plains to small hills.

Additional locality: Central India.

16. *Formica gagates* Latreille 1798

17. *Formica sanguinea* Latreille 1798

Both species collected from Lahoul (3,000 m), Himachal Pradesh and earlier reported from the same region.

18. *Lasius alienus* (Foerster 1850)

19. *Lasius himalayanus* Bingham 1903

Both species collected mainly from trees at Kulu (1,219 m), Manali (2,050 m), and Lahoul (3,000 m), Himachal Pradesh; no additional locality apart from northwest India.

20. *Lepisiota frauenfeldi* Mayr 1855

21. *Lepisiota opaca* (Forel 1892)

Both species of *Lepisiota* widely distributed in India.

22. *Oecophylla smaragdina* Fabricius 1775

Widely distributed in India.

23. *Paratrechina birmana* (Forel 1902)

Collected from soil nest in plains, widely distributed in India.

24. *Paratrechina longicornis* (Latreille 1802)

Collected from soil nest, also from dead wood and even carcasses, from plains to foothills, and is widely distributed.

25. *Plagiolepis* sp. Mayr 1861

Only collected from Keylong (3,300 m), Himachal Pradesh; earlier reported from northwestern, southern and eastern India.

26. *Polyrhachis jerdoni* Forel 1892

Collected from Dunera (700 m), Himachal Pradesh; Pathankot (620 m), Punjab.

Additional locality: Assam; represents first record from India.

27. *Polyrhachis rupicapra* Roger 1862

Collected from Malakpur near Pathankot (400 m), Punjab and also represents first record from India.

28. *Prenolepis naorojii* Forel 1902

Collected from Dunera (700 m), Himachal Pradesh.

Additional locality: Assam.

ACKNOWLEDGEMENT

We thank the Department of Science and Technology, Ministry of Human Resources, New Delhi (Grant No. HR/SY/Z-01/97), for financial assistance.

June 22, 2000

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REFERENCE

BINGHAM, C.T. (1903): Hymenoptera Vol. II Ants, Cuckoo-Wasps. *In*: The Fauna of British India including Ceylon and Burma (Ed: Blanford, W.T.). Taylor and Francis, London xix + 106 pp.

32. ON THE DIPTERA OF NAYACHAR ISLAND, WEST BENGAL

(With one text-figure)

The study of island fauna, whether oceanic or riverine, is always interesting. Nothing was known of the Diptera fauna of the Nayachar Island until the project "Faunal succession in relation to vegetation of the newly emerged Nayachar Island" on the River Hooghly, near Haldia was started in 1992. The present investigation is part of a long-term study on the succession and the diversity of Dipteran fauna on a newly emerged island. The main objective here is to give a comprehensive account of the Diptera of the island.

Brief description of sites: Nayachar Island is situated on the River Hooghly, near the mouth of River Haldi, Midnapore district, West Bengal (Fig. 1). Nayachar is a spindle-shaped, silt deposited island with an area of about 29.36 sq. km, formed due to continuous riverine

action at the mouths of the Hooghly and Haldi. The distance between this island and the nearest landmass Haldia of Midnapore is only 3 km. The topography of the island is flat and the average height from water level is about 0.90-3 m (Hazra *et al.* 1996). The vegetation comprises mainly natural grasslands and mangrove plants.

SYSTEMATIC ACCOUNT

Suborder: Brachycera

Family: Stratiomyidae

Subfamily: Stratiomyinae

1. *Microchrysa flaviventris* (Wiedemann)

1824. *Sargus flaviventris* Wiedemann,
Analecta Ent: 31.

Material examined: 1 ♂, Nayachar,
28.x.1998, coll. B. Mitra.